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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,179	01/15/2002	Kenneth L. Stanwood	ENSEMB.035A	2846

27189 7590 01/24/2007

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EXAMINER	
SEFCHECK, GREGORY B	
ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/053,179	STANWOOD ET AL.	
	Examiner	Art Unit	
	Gregory B. Sefcheck	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19 and 22-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19 and 22-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

- Applicant's Amendment filed 11/22/2006 is acknowledged.
- Claims 4, 28, and 45 have been amended.
- The previous rejection of claims 4, 28, and 45 under 35 USC 112, 2nd paragraph is withdrawn in light of the present amendments.
- Claims 1-19 and 22-45 remain pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 6, 9, 11-15, 17-19, 22-25, 39, and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhang.

- In regards to Claims 1, 2, 6, 9, 23-25, and 39,

Zhang discloses a network layer protocol aware link layer. Zhang discloses a method and system for transferring IP packets encapsulated in a radio link protocol (RLP) frame (Abstract; Col. 2, lines 61-63; claim 1,2,24,25,39 – method/system for transferring packets between base station and at least one node; claim 6 – first format is

IP; claim 23 – method for converting packets in first or second format into packets of third format).

Zhang shows that IP packets received from the network layer are encapsulated in the RLP frame along packet boundaries. Zhang shows that IP packets are fragmented if they do not fit into a single RLP frame and packed into the payload(s) of RLP frames. Control information for properly recovering the IP packets/fragments are provided in the header of the RLP frames (Figs. 2, 4 & 5; Col. 3, lines 5-23; claim 1,2,24,25,39 – interface for receiving packet at base station/at least one node from data source/users in first or second format; claim 1,2,24,25,39 – converter for converting into packets in third format by packing and fragmenting in a coordinated manner; claim 9 – first or second format packets having control information and converting is accomplished by utilizing the control information in header portion of the third format packets while storing the data in the first or second format packets in payload of third format packets; claim 23 – preparing first packet in third format having payload for storing data and header for storing control information; claim 23 – receiving incoming information packet; claim 23 – determining if incoming packet is smaller than available payload in first packet; claim 23 – storing incoming packet in payload if it is smaller, otherwise fragmenting the incoming packet by storing only the amount that will fit in the first packet and storing the remainder in the payload of a subsequent packet in third format; claim 23 – updating header of first packet to indicate presence and location of an incomplete packet; claim 23 – preparing a subsequent packet in third format having a payload and header; claim 23 – storing control information about any existing

remainder of the incoming packet in the header of the subsequent packet; claim 23 – storing any existing remainder of the incoming packet in the payload of the subsequent packet if payload is large enough, otherwise fragmenting as above).

It is inherent in Zhang that the disclosed RLP frames are transmitted through a network, such as a 3G wireless system between a base station and mobile (Col. 1, lines 46-54), where the encapsulated IP packets/fragments can be received and reassembled at the destination of the transmission (claim 1,2,24,25,39 – transmitter for transmitting to at least one node in the third format; claim 1,2,24,25,39 – receiver for receiving packets in third format at the at least one node/base station and converting back into first or second format by unpacking and defragmenting; claim 1,2,24,25,39 – interface for transferring packets in first or second format to users/data source).

- In regards to Claim 3,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang discloses the RLP frames encapsulating IP (Internet Protocol) packets (claim 3 – data sources can be internet, other networks, databases).

- In regards to Claims 4 and 45,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Though Zhang does not explicitly disclose users as individuals or LAN, WAN, or ring-networks, Zhang discloses utilizing the invention within 3G wireless systems such as CDMA, UMTS, etc (Col. 1, lines 45-54). It is inherenet that data communication is performed to individual users of mobile devices in such networks (claim 4,45 – users are individuals or networks such as intranets, LANs, WANs or ring-networks).

- In regards to Claim 5,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang shows that RLP frame encapsulation is performed in order to control communication (access) on the radio link (claim 5 – third packet format is MAC format).

- In regards to Claims 11 and 12,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang discloses that the RLP header contains control bits to indicate the presence and orientation of IP packet fragments in the frame (Col. 3, lines 8-23; claim 11 – header contains a plurality of fragmentation control bits in indicate the presence and orientation of fragments along with any whole first or second format packets in the payload; claim 12 – fragmentation is accomplished by creating a fragment by including less than all of the first or second format packet in a corresponding third format packet and indicating this in the fragmentation control bits).

- In regards to Claims 13, 14, 17-19, and 22,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang shows that a fragment beginning and ending flag (claim 13 – 2 control bits) are included in the RLP header, indicating whether the payload of the RLP frame contains a first, non-first or last packet fragment (claim 17 – fragmentation comprises an end fragment at the beginning of the payload, a first fragment at the end of the payload or a lone continuing fragment in the payload; claim 18 – fragmentation comprises any combination of whole and fragments of first or second format packets, combinations limited only by number of fragmentation control bits utilized in the header).

Zhang also shows that additional bits to indicate the length of the fragment are included in the RLP frame header (claim 14 – more than 2 control bits), thereby influencing the allocation of bandwidth for the transmission of the frame (claim 19,22 – utilizing information regarding packing and fragmentation as part of algorithm for allocation of bandwidth).

- In regards to Claim 15,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang disclosure is provided with respect to operations performed in the link layer (Title; claim 15 – fragmentation and packing done in same layer).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of Jha (US007006525B1).

- In regards to Claim 7,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang does not explicitly disclose ATM data being encapsulated in RLP frames.

Jha discloses a hybrid data transport scheme. Jha discloses the ability to transport data, such as IP and ATM data, in SONET frames. Jha shows that IP and/or ATM data that does not fully fit into a single SONET frame may be fragmented and transported over multiple frames (Fig. 5-7, 9-11; Col. 10, lines 11-15); claim 7 – first format is ATM).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system of Zhang by enabling the fragmentation and packing of ATM data, as taught by Jha, in RLP frames. This would enable the transport of various data types using the same network layer-aware link layer taught by Zhang in transporting IP packets.

- In regards to Claims 10,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang discloses that a 10 bit subheader in the RLP frame of a packet fragment indicates the length of the encapsulated packet fragment (Col. 3, lines 16-17).

Jha discloses a hybrid data transport scheme. Jha discloses that, when transporting fragmented data, an offset field in the payload of the frame, outside of the header fields(s), is used to point to the beginning of the next frame where the remainder of the fragmented packet is contained (Fig. 13; Col. 10, lines 15-23; claim 10 – payload area of third format packets includes a packing subheader to indicate the length of first or second format packets).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system of Zhang by including a fragment length subheader in the payload of the frame, as taught by Jha. This would keep the information on where the remainder of the fragmented packet is contained separate from the control information for the current fragment contained in the header portion.

5. Claims 8, 26-29, 34, 35, 38, and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of Sturza et al. (US006665296B1), hereafter Sturza.

- In regards to Claim 8,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang discloses radio link protocol frames but fails to explicitly discloses radio waves in the millimeter bandwidth spectrum.

Sturza discloses a two-way communication system for subscribers to access a wide area network (Abstract). Sturza shows that radio communication takes place on millimeter radio signals (Col. 4, lines 47-52; Col. 5, lines 5-7; claim 8 – transmitting is via radio waves in the millimeter bandwidth spectrum).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the method and system of Zhang using radio waves in the millimeter bandwidth spectrum, as shown by Sturza. This would enable method and system of Zhang to use the standard bandwidth spectrum for radio wave communication.

- In regards to Claims 26, 27, 40, and 41,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Though Zhang discloses implementation of the method and system in 3G wireless systems, Zhang does not explicitly disclose a base station or node comprising the component structure as claimed in claims 26, 27, 40, and 41.

Sturza discloses a two-way communication system for subscribers to access a wide area network (Abstract). Referring to Fig. 8, Sturza discloses the structure of communication terminal comprising a modem 52, and IF-RF interface, and an antenna to transmit and receive RF signals (claim 26,27,40,41 – modem configured to modulate information into analog signals and demodulate information from analog signals; claim 26,27,40,41 – IF-RF module to convert IF to RF; claim 26,27,40,41 – antenna to transmit and receive RF signals; claim 26,27,40,41 – processor to convert first or second format packets into third format packets by packing and fragmenting in a coordinated manner and to convert third format packets back into first or second format packets; claim 26,27,40,41 – interface configured to provide two-way communication of incoming packets with data source/users).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system of Zhang for implementation in the two-way RF-IF system as shown by Sturza. This would enable efficient communication of packets and packet fragments of Zhang in the environment shown in Sturza.

- In regards to Claim 28,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Though Zhang does not explicitly disclose users as individuals or LAN, WAN, or ring-networks, Zhang discloses utilizing the invention within 3G wireless systems such as CDMA, UMTS, etc (Col. 1, lines 45-54). It is inherenet that data communication is

performed to individual users of mobile devices in such networks (claim 28 – users are individuals or networks such as intranets, LANs, WANs or ring-networks).

- In regards to Claim 29,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang shows that IP packets received from the network layer are encapsulated in the RLP frame along packet boundaries. Zhang shows that IP packets are fragmented if they do not fit into a single RLP frame and packed into the payload(s) of RLP frames. Control information for properly recovering the IP packets/fragments are provided in the header of the RLP frames (Figs. 2, 4 & 5; Col. 3, lines 5-23; claim 29 – first or second format packets having control information and converting is accomplished by utilizing the control information in header portion of the third format packets while storing the data in the first or second format packets in payload of third format packets).

- In regards to Claim 34,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang disclosure is provided with respect to operations performed in the link layer (Title; claim 34 – fragmentation and packing done in same layer).

- In regards to Claim 35,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Though Zhang discloses operations of the method and system within the link layer, Zhang does not explicitly discloses fragmentation and packing done by the same processor.

However, it is common for network operations occurring within the same layer to be performed by the same processor (claim 35 - fragmentation and packing done by same processor).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system of Zhang to perform fragmentation and packing within the same layer by the same processor, thereby maintaining the relationship between fragmentation and packing so that communication of the data is performed without error. Such operation also conforms with common practice in the art, as processing layers are established within network protocols for this reason.

- In regards to Claim 38,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang also shows that additional bits to indicate the length of the fragment are included in the RLP frame header, thereby influencing the allocation of bandwidth for

the transmission of the frame (claim 38 – utilizing information regarding packing and fragmentation as part of algorithm for allocation of bandwidth).

- In regards to Claim 42,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang discloses that the RLP header contains control bits to indicate the presence and orientation of IP packet fragments in the frame (Col. 3, lines 8-23; claim 42 – header contains a plurality of fragmentation control bits in indicate the presence and orientation of fragments along with any whole first or second format packets in the payload).

- In regards to Claim 43,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang shows that a fragment beginning and ending flag (claim 13 – 2 control bits) are included in the RLP header, indicating whether the payload of the RLP frame contains a first, non-first or last packet fragment (claim 43 – fragmentation comprises an end fragment at the beginning of the payload, a first fragment at the end of the payload or a lone continuing fragment in the payload).

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang.

- In regards to Claims 16,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Though Zhang discloses operations of the method and system within the link layer, Zhang does not explicitly discloses fragmentation and packing done by the same processor.

However, it is common for network operations occurring within the same layer to be performed by the same processor (claim 16 - fragmentation and packing done by same processor).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system of Zhang to perform fragmentation and packing within the same layer by the same processor, thereby maintaining the relationship between fragmentation and packing so that communication of the data is performed without error. Such operation also conforms with common practice in the art, as processing layers are established within network protocols for this reason.

7. Claims 30-33, 36, 37, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of Sturza as applied to claims 29 and 43 above, and further in view of Jha.

- In regards to Claims 30 and 44,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang discloses that a 10 bit subheader in the RLP frame of a packet fragment indicates the length of the encapsulated packet fragment (Col. 3, lines 16-17).

Jha discloses a hybrid data transport scheme. Jha discloses that, when transporting fragmented data, an offset field in the payload of the frame, outside of the header fields(s), is used to point to the beginning of the next frame where the remainder of the fragmented packet is contained (Fig. 13; Col. 10, lines 15-23; claim 30,44 – payload area of third format packets includes a packing subheader to indicate the length of first or second format packets).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and system of Zhang by including a fragment length subheader in the payload of the frame, as taught by Jha. This would keep the information on where the remainder of the fragmented packet is contained separate from the control information for the current fragment contained in the header portion.

- In regards to Claims 31 and 32,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang discloses that the RLP header contains control bits to indicate the presence and orientation of IP packet fragments in the frame (Col. 3, lines 8-23; claim

31 – header contains a plurality of fragmentation control bits in indicate the presence and orientation of fragments along with any whole first or second format packets in the payload; claim 32 – fragmentation is accomplished by creating a fragment by including less than all of the first or second format packet in a corresponding third format packet and indicating this in the fragmentation control bits).

- In regards to Claims 33, 36, and 37,

Zhang discloses a network layer protocol aware link layer that covers all limitations of the parent claim.

Zhang shows that a fragment beginning and ending flag (claim 13 – 2 control bits) are included in the RLP header, indicating whether the payload of the RLP frame contains a first, non-first or last packet fragment (claim 36 – fragmentation comprises an end fragment at the beginning of the payload, a first fragment at the end of the payload or a lone continuing fragment in the payload; claim 37 – fragmentation comprises any combination of whole and fragments of first or second format packets, combinations limited only by number of fragmentation control bits utilized in the header).

Zhang also shows that additional bits to indicate the length of the fragment are included in the RLP frame (claim 33 – more than 2 control bits).

Response to Arguments

8. Applicant's arguments filed 11/22/2006 have been fully considered but they are not persuasive.

- In the Remarks on pg. 18 and 19 of the Amendment, Applicant contends that Zhang does not disclose packing and fragmenting in a coordinated manner because Zhang only one packet of information is capable of being contained in each RLP frame. Applicant asserts that Zhang actually teaches away from the claimed packing because Zhang wants RLP boundaries to correspond to packet boundaries. Further, Applicant contends Zhang does not show packing and fragmenting "in a coordinated manner" because the claimed coordination leads to increased efficiency in the use of available bandwidth, to which Zhang is silent.
- The Examiner respectfully disagrees. Zhang discloses a RLP framing structure. Col. 2, lines 34-39, cited by Applicant, states *in entirety* that RLP frames correspond to either an entire IP packet *or a portion of an IP packet* (emphases added), such that Zhang does not teach away from the claimed packing and fragmenting, as alleged by Applicant. Further, Fig. 4 shows a fragmented RLP frame in which an IP packet portion (fragment) is put into an RLP frame (packed). Multiple fragmented RLP frames are required to transmit an entire IP packet, with information on each fragment and how it relates to the other fragments being stored in a header such

that the packing and fragmenting is performed "in a coordinated manner", thereby meeting the contested claim limitations. Applicant's assertion that the claimed coordination leads to increased efficiency in the use of available bandwidth is irrelevant because this feature is not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

- In the Remarks on pg. 18-19 of the Amendment, Applicant contends that Zhang does not disclose utilizing information regarding packing and fragmenting to allocate bandwidth.
- The Examiner respectfully disagrees. As shown above, transmission of an IP packet using multiple fragmented RLP frames includes information in a header pertaining to the length of the fragment. It is inherent that the bandwidth allocated to a frame is based upon the length of the frame.

- In the Remarks on pg. 19 of the Amendment, Applicant contends that Zhang does not disclose numerous limitations from claim 23. Applicant specifically asserts that Zhang does not disclose comparing the size of an incoming packet to the available payload in an outgoing packet or describing the fragmenting of a packet if it will not fit in the available payload.

- The Examiner respectfully disagrees. As shown in the rejection and further illustrated in the response to arguments above, Zhang discloses the transmission of an IP packet by fragmenting the packet and packing the packet portions into multiple RLP frames, each frame having a header to carry information as to how the multiple fragments are related to each other. This disclosure of Zhang inherently illustrates that the size of IP packet is detected to be incapable of fitting into the available payload of a single frame, resulting in the disclosed fragmentation and meeting the contested claim limitations.

- In the Remarks on pg. 20 of the Amendment, Applicant contends that Jha cannot be properly combined with Zhang as Jha pertains to fiber optic networks and is not faced with the issues of error correction at the same level as transmitting over air.
- The Examiner respectfully disagrees. Jha is relied upon to show that it is known in the prior art that ATM may be encapsulated in RLP frames. Jha is not relied upon to illustrate deficiencies in Zhang specifically related to transmitting over the air. Both Jha and Zhang relate to network communication and are therefore analogous art properly combinable as shown in the above rejection.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B. Sefcheck whose telephone number is 571-272-3098. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GBS
1-10-2007

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